

**REMARKS**

Claims 1-17 are pending. Claims 1-17 stand rejected. Claims 12-15 have been canceled. Claims 1, 10 and 16 have been amended. Support for these amendments is found in Examples 9 and 10. No new matter is introduced by these amendments.

**Reply to the Rejection of the Claims under 35 U.S.C. § 102(b)**

*Duccini -*

The Examiner has again rejected claims 1-10 and 12-17 under 35 U.S.C. § 102(b) as being anticipated by European Patent No. 812 905 to Duccini *et al.* ("Duccini"). Specifically, the Examiner states –

Duccini et al, EP 812,905, discloses a dishwashing detergent tablet comprising 0.3-5% by weight of a hydrophilic/hydrophobic polymer, 0-20% by weight of a phosphate builder, and adjunct ingredients (see abstract and page 2, lines 31-56). Specifically, note Example 1, which discloses a dishwashing tablet comprising 35% by weight of sodium citrate dihydrate, 8% by weight of carbonate, 10% by weight of perborate, 3% by weight of TAED, 4.5% by weight of polyacrylic acid, 1% by weight of a nonionic surfactant, 38-38.5% by weight of bicarbonate, and 0.5% by weight a tableting aid (see page 3, lines 1-21). Furthermore, note that a suitable tableting aid includes a copolymer of styrene, 2-hydroxyethylacrylate, and methacrylic acid (see page 3, Table 1), and that the dishwashing table is used in a process to wash dishes and silverware (see page 4, line 19-page 5, line 48). Therefore, instant claims 1-10 and 12-17 are anticipated by Duccini et al, EP 812,905....

.... Applicant argues that Duccini et al, EP 812,905, does not teach or suggest the polymer of the present invention, which prevents the formation of a gel, thereby increasing the solubility rates of the single dose packets. However, the examiner respectfully asserts that this limitation argued by applicant does not appear in the claims as presently written, and thus is not accorded any patentable weight. Furthermore, the examiner asserts that even if the claims did recite this limitation, that Duccini et al would still anticipate the instant claims, since the increased solubility rate is an inherent property of the composition disclosed in Duccini et al. *See MPEP 2111.02*. Applicant further argues that Duccini et al does not teach or suggest a method for treating aluminum. However, the examiner respectfully asserts that Duccini et al clearly teaches that the dishwashing composition is used in a process to wash silverware (see page 4, line 19-page 5, line 48), which meets the requirement of instant claim 12. Applicant also argues that Duccini et al does not teach or suggest a rinse aid composition, as required in instant claim 16. However, the examiner asserts that the requirement of a "rinse aid composition used as a rinse aid" recited in instant claim 16 is an intended use limitation that is not accorded any patentable weight.

For the following reasons, Applicants again respectfully traverse the Examiner's rejection of

claims 1-10 and 12-17 as being anticipated by Duccini.

As previously indicated, Duccini teaches detergent tablets and bars having at least 50 weight % of a non-phosphate builder and from 0 to 20 weight % of a phosphate builder (p. 2, lines 37-38). Incorporated into the tablet as a binder (also referred to as a 'tableting aid') is from 0.3 weight % to 5 weight % of a neutralized polymer formed from hydrophilic or hydrophobic monomers selected from (meth)acrylic acid, maleic anhydride, hydroxyalkyl(meth)acrylic acids, alkyl (meth)acrylates, alkylhydroxy (meth)acrylates, alkyl(meth)acrylic acids, or styrene (p. 2, lines 38-43). The binder or tableting aid is added to the formulation for the purpose of improving the hardness of the tablets (*see, e.g.*, p. 3, lines 21-45; p. 4, lines 15-24; p. 5, lines 17-44).

Independent claims 1, 10 and 16 have been amended to state that the hydrophobically modified polymer improves the solubility of a surfactant versus a composition or formulation without the polymer. Regarding the Examiner's statement that Duccini anticipates "the instant claims, since the increased solubility rate is an inherent property of the composition disclosed in Duccini et al.", Applicants respectfully disagree.

"To invalidate a patent by anticipation, a prior art reference normally needs to disclose each and every limitation of the claim. . . . However, a prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it. . . . Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claim limitations, it anticipates." *Abbott Laboratories v. Geneva Pharmaceuticals, Inc.*, 182 F.3d 1315, 51 U.S.P.Q.2d 1307 (Fed. Cir. 1999).

Example VI of Duccini is directed towards evaluating the dissolution rates of tablets formulated with its polymeric binder (p. 5, lines 45-58). Therein Duccini states that commercial tablets were slow to dissolve but "fall apart suddenly when wet." In contrast, formulations according to the invention of Duccini "dissolve more regularly from the early beginning to the end of the wash cycle". This would lead one skilled in the art to believe that the polymeric binders of Duccini simply control the dissolution of the tablet over time due to its being disperse throughout the tablet when formed. (Here, tablet formulations containing the polymeric binders of Duccini took 21 and 24 minutes to completely dissolve versus commercial tablets that took 22 and 33 minutes to completely dissolve.)

In contrast, Examples 9 and 10 of the present application illustrates that a polymer

solution according to the present invention greatly increase the dissolution rate of a surfactant (from 22 minutes to just 2 minutes in Example 9, and from 35 minutes to only 3 minutes in Example 10). Such evidence clearly illustrates that the properties of the polymeric binder of Duccini are not inherent in the presently claimed formulations. One skilled in the art simply would not expect the polymeric binder of Duccini to provide the improved dissolution rate found with the present invention. Accordingly, it cannot be said that the polymeric binder of Duccini "functions in accordance with" the presently claimed invention and therefore does not inherently anticipate it.

Regarding the rejection of claims 12-15, those claims have been canceled. Accordingly, the rejection of those claims is now moot.

For at least these reasons, Duccini does not anticipate the presently claimed invention. Withdrawal, therefore, of the rejection of claims 1-10 and 12-17 as being anticipated by Duccini is respectfully requested.

*Bory -*

The Examiner has again rejected claims 1, 2, 4-11, 16 and 17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,747,442 to Bory *et al.* ("Bory"). Specifically, the Examiner states –

Bory *et al.*, U.S. Patent No. 5,747,442, discloses a laundry pretreater composition in stick form comprising 0.1-10% by weight of a hydrophobically modified polar polymer which has a hydrophilic backbone, 30-80% by weight of a nonionic surfactant, 5-20% by weight of an anionic soap, and enzyme stabilizing system (see abstract and col. 1, line 65-col. 2, line 9). It is further taught by Bory *et al.* that the backbone includes a single monomer, such as acrylic acid, and that the hydrophobic tail includes a second monomer, such as lauryl methacrylate or styrene (see col. e, line 26-col. 3, line 36). Specifically, note Examples 1 and 3. Therefore, instant claims 1-2, 4-11 and 16-17 are anticipated by Bory *et al.*, U.S. Patent No. 5,747,442. . . .

. . . . Applicant further argues that Bory *et al.*, U.S. Patent No. 5,747,442, does not teach a detergent formulation that is formed into a single dose portion. However, the examiner respectfully asserts that the pretreater composition in stick form disclosed by Bory *et al.* meets the "single dose portion" requirement of the instant invention, since application of a detergent formulation in stick form would apply a single dose portion of the composition onto the treated substance. Applicant further argues that Bory *et al.* does not teach or suggest a rinse aid composition, as required in instant claim 16. However, the examiner asserts that the requirement of a "rinse aid composition used as a rinse aid" recited in instant claim 16 is an

intended use limitation that is not accorded any patentable weight. Applicant also argues that Bory et al does not disclose a method for treating aluminum, as required in instant claim 12. The examiner agrees with applicant on this point, and respectfully points out that instant claims 12-15 of the instant application, which are drawn to a method for treating aluminum, have not been rejected by Bory et al, U.S. Patent No. 5,747,442.

For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1, 2, 4-11, 16 and 17 as being anticipated by Bory.

As previously noted, Bory teaches a stick pretreater composition for stain removal that contains 30 to 80 weight % of a nonionic surfactant, 1 to about 20 weight % of an anionic soap, and 0.1 to 10 weight % of a hydrophobically modified polar polymer (Abstract). The polymer has a hydrophilic monomeric backbone and a hydrophobic monomeric tail portion attached to the backbone (col. 2, lines 1-4 and 26-30). Monomer units making up the hydrophilic backbone include unsaturated acids such as acrylic acid, methacrylic acid and maleic acid, cyclic units such as maleic anhydride, and saturated polyalcohols (col. 3, lines 12-24). The polymer is present in the stick pretreater in an amount of 0.01 to 10% by weight of the composition (col. 4, lines 24-26).

In contrast to Bory, the present inventions as amended are directed towards a detergent formulation having a hydrophobically modified polymer that improves the solubility of a surfactant versus a composition without the polymer; a non-aqueous formulation having a hydrophobically modified polymer that improves the solubility of a surfactant versus a composition without the polymer and a rinse aid composition for use in automatic dishwashers having a hydrophobically modified polymer that improves the solubility of a surfactant versus a composition without the polymer. Bory does not teach or suggest a hydrophobically modified polymer that improves the solubility of a surfactant versus a composition without the polymer. Further, the stick pretreater composition of Bory is directed towards the cleaning of clothes wherein the composition is rubbed onto an article of clothing prior to the wash cycle. Bory does not teach or suggest use of its composition as a rinse aid for use in the rinse cycle of a dishwasher.

For at least these reasons Bory cannot be said to anticipate the presently claimed invention. For at least these reasons, withdrawal of the rejection of claims 1, 2, 4-11, 16 and 17 as being anticipated by Bory is respectfully requested.

*Kimpton -*

The Examiner has again rejected claims 1, 2, 4-10 and 12-17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,650,473 to Kimpton *et al.* ("Kimpton"). Specifically, the Examiner states –

Kimpton *et al.*, U.S. Patent No. 5,650,473, discloses a fabric or hard surface cleaning composition comprising a copolymer of acrylic acid and styrene (see col. 2, line 18-col. 3, line 25), and adjunct ingredients, such as surfactants (see col. 4, lines 62-65). Specifically, note Examples 4-8, which disclose powder detergents comprising a copolymer of acrylic acid and styrene, builders, nonionic surfactants, and adjunct ingredients, for washing dishes, fabrics and aluminum surfaces. Therefore, instant claims 1-2, 4-10, and 12-17 are anticipated by Kimpton *et al.*, U.S. Patent No. 5,650,473. . . .

. . . . Applicant further argues that Kimpton *et al.*, U.S. Patent No. 5,650,473, requires a water miscible solvent in forming their hydrophobically modified polymers, which is not required in the instant invention. However, the examiner asserts that the instant claims, as presently written, do not exclude the presence of water miscible solvents. Furthermore, the examiner respectfully asserts that the instant claims are directed toward compositions and method for using compositions, and not toward a process for making a composition, as argued by applicant.

For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1, 2, 4-10 and 12-17 as being anticipated by Kimpton.

Referring to Kimpton therein is disclosed a solution polymerization method for preparing styrene copolymers useful in applications such as corrosion inhibition and cleaning compositions. The monomers used in forming the polymer included styrene and/or substituted styrene monomer and a carboxylated monomer. The polymerization involves polymerizing the styrene monomer and the carboxylated monomer in a water-miscible solvent to form a polymer solution having acid moieties, neutralizing at least part of those acid moieties, and then removing the water miscible solvent (col. 1, lines 49-62). The amount of acid moieties required to be moved depends upon the styrene content of the monomer mix (col. 2, lines 18-38). The styrene or substituted styrene comprises about 40 to 90% by weight of the total monomer used to prepare the polymer (col. 2, line 66 – col. 3, line 2). The carboxylated monomer can be acrylic acid, substituted acrylic acid, crotonic acid or itaconic acid, and is present in an amount of about 10 to 60% by weight (col. 3, lines 8-13).

Claims 1, 10 and 16 have been amended to state that the hydrophobically modified polymer improves the solubility of a surfactant versus a composition without the polymer.

Kimpton does not teach or suggest such a benefit. Regarding the rejection of claims 12-15, those claims have been canceled. Accordingly, the rejection of those claims is now moot.

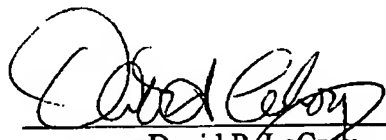
For at least these reasons, withdrawal of the rejection of claims 1, 2 4-10 and 12-17 as being anticipated by Kimpton is respectfully requested.

It is believed that the above amendments and remarks overcome the Examiner's rejections of the claims. Withdrawal of those rejections is respectfully requested. Allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Respectfully submitted,

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